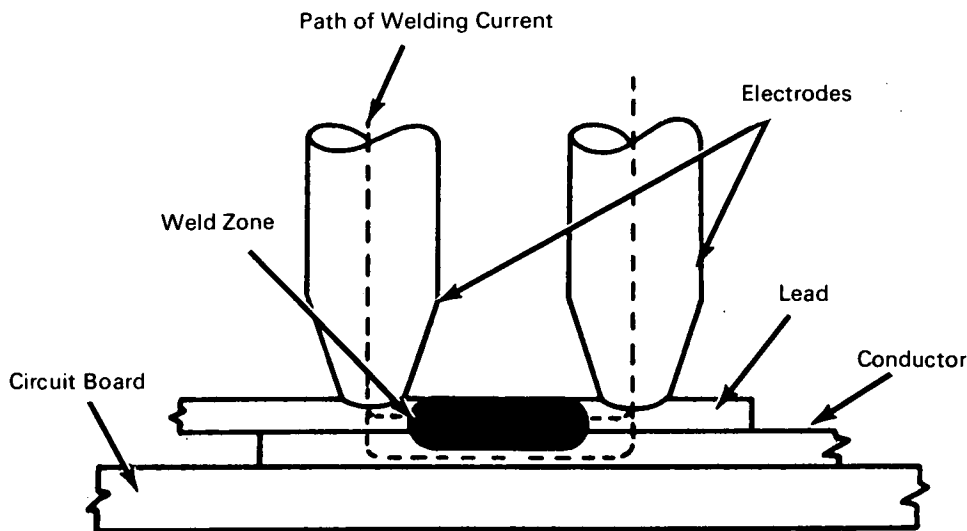


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Applications of Gap Welding



Detail of the Gap Welding Process

Gap welding is making a significant impact in the area of electronic interconnections. It yields high strength joints, is easy to use and allows visual inspection of the welding process. Furthermore, it is easily adaptable to automated circuit assembly. The figure illustrates details of the process.

The application of gap welding to a wide range of electronic interconnection problems is discussed in the supporting documentation (see Note). Welding to thin films, thick films, and printed circuit boards is demonstrated, and a sample circuit is developed utilizing a new design concept for automated production of component-assembled circuits.

Such an automated assembly process, using planar gap welding, makes assembly a simple two-dimensional problem when accurately indexed component packages are available. The only obstacle preventing

realization of automated electronic circuit assembly using this method is that currently available component packages lack sufficiently accurate indexing to place each lead in position for welding.

Note:

Requests for further information may be directed to:
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No patent action is contemplated by NASA.

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